

Title (en)
SUCTION DEVICE

Title (de)
SAUGVORRICHTUNG

Title (fr)
DISPOSITIF D'ASPIRATION

Publication
EP 3037116 B1 20190116 (EN)

Application
EP 15743244 A 20150129

Priority
• JP 2014015088 A 20140130
• JP 2014094272 A 20140430
• JP 2014166607 A 20140819
• JP 2015052441 W 20150129

Abstract (en)
[origin: EP3037116A1] Provided is a suction device that can suppress sound and vibration during use. A suction device includes a flow-passage forming section (1) having a suction port (20) from which fluid is sucked, a discharge port (29) from which the fluid is discharged, and a flow passage (2) which is sealed from an outside except at the suction port (20) and the discharge port (29) and through which the fluid flows, and a piezoelectric driving part (33) that generates a flow of the fluid in the flow passage (2). The piezoelectric driving part (33) includes a diaphragm (37) and a piezoelectric element (34) as a moving part that transmits driving force to the fluid. The moving part is entirely disposed inside the flow passage (2).

IPC 8 full level
A61M 1/00 (2006.01); **A61M 1/06** (2006.01)

CPC (source: EP US)
A61M 1/06 (2013.01 - EP US); **A61M 1/604** (2021.05 - EP US); **A61M 1/69** (2021.05 - US); **A61M 1/71** (2021.05 - EP US); **A61M 1/73** (2021.05 - EP US); **A61M 1/74** (2021.05 - EP US); **A61M 1/79** (2021.05 - US); **A61M 1/80** (2021.05 - EP US); **A61M 1/882** (2021.05 - EP US); **A61M 1/90** (2021.05 - EP); **A61M 1/962** (2021.05 - EP US); **A61M 1/966** (2021.05 - EP); **A61M 1/984** (2021.05 - EP); **A61M 1/062** (2014.02 - US); **A61M 1/784** (2021.05 - EP US); **A61M 2205/42** (2013.01 - EP US); **A61M 2205/8206** (2013.01 - EP US); **A61M 2210/0618** (2013.01 - EP US)

Citation (examination)
• US 2004105769 A1 20040603 - WU AN CHIUAN [TW], et al
• US 3957051 A 19760518 - TOPHAM SILAS CHARLES

Cited by
US10682446B2; US10737002B2; US10780202B2; US10973693B2; US10973965B2; US11654228B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3037116 A1 20160629; EP 3037116 A4 20170503; EP 3037116 B1 20190116; EP 3488880 A1 20190529; EP 3488880 B1 20200701; JP 2017205654 A 20171124; JP 6245280 B2 20171213; JP 6575573 B2 20190918; JP WO2015115516 A1 20170323; US 10413641 B2 20190917; US 2016271305 A1 20160922; WO 2015115516 A1 20150806

DOCDB simple family (application)
EP 15743244 A 20150129; EP 18215112 A 20150129; JP 2015052441 W 20150129; JP 2015559999 A 20150129; JP 2017169183 A 20170904; US 201615167092 A 20160527